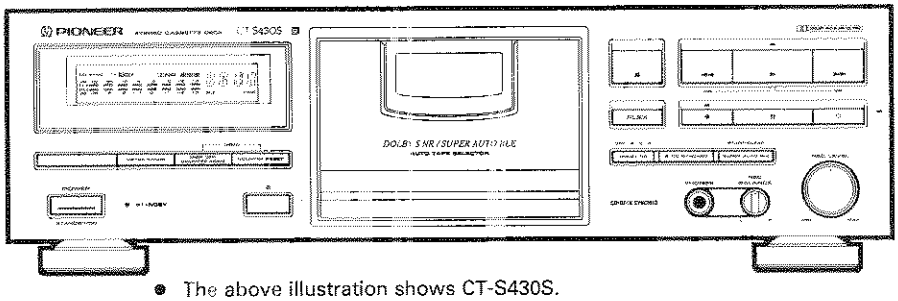
Operating Instructions

STEREO CASSETTE DECK

CT-S430S
CT-S330

SPARE PARTS MASTER



- The above illustration shows CT-S430S.
- For the demo function, refer to back cover of these operating instructions.

Thank you for buying this PIONEER product.
Please read through these operating instructions so you will know how to operate your unit properly. After you have finished reading the instructions, keep the manual in a safe place for future reference.
In some countries or regions, the shape of the power plug and power outlet may sometimes differ from that shown in the explanatory drawings. However, the method of connecting and operating the unit is the same.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

"This product complies with the Radio Interference requirements of the EC (European Community) Directive 87/308/EEC."

IMPORTANT 1

The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION:
TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

IMPORTANT 2

FOR USE IN THE UNITED KINGDOM

The wires in this mains lead are coloured in accordance with the following code:

blue neutral
brown live

If the plug provided is unsuitable for your socket outlets, the plug must be cut off and a suitable plug fitted.

The cut-off plug should be disposed of and must not be inserted into any 13 amp socket as this can result in electric shock. The plug or adaptor or the distribution panel should be provided with 5 amp fuse. As the colours of the wires in the mains lead of this appliance may not correspond with coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

Do not connect either wire to the earth terminal of a three pin plug.

NOTE
After replacing or changing a fuse, the fuse cover in the plug must be replaced with a fuse cover which corresponds to the colour of the insert in the base of the plug or the word that is embossed on the base of the plug, and the appliance must not be used without a fuse cover. If lost, replacement fuse covers can be obtained from your dealer.
Only 5 A fuses approved by B.S.I. or A.S.T.A. to B.S. 1362 should be used.

PIONEER®
The Art of Entertainment

CONTENTS

INSTALLATION 2
MAINTENANCE 2
HANDLING CASSETTE TAPES 3
CONNECTIONS 4
FRONT PANEL FACILITIES 6
FUNCTION DISPLAY 8
TWO MODES COUNTER 9
PLAYBACK 10
MUSIC SEARCH 10
RECORDING 11
RECORDING MUTE 11
SUPER AUTO BLE 12
CD · DECK SYNCHRO RECORDING 13
TROUBLESHOOTING 14
SPECIFICATIONS 16

INSTALLATION

When installing the deck, avoid locations with high temperatures or humidity, and make sure that the deck receives adequate ventilation.

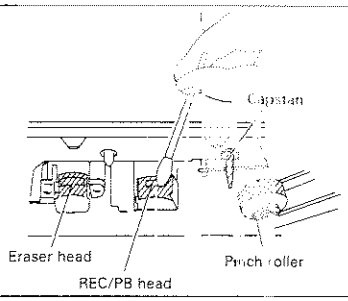
- Do not install the deck in locations subject to direct sunlight, or near a space heater or other heating device, as this may cause damage to the finish or the internal parts.
- Malfunctions may also result if the deck is installed in an excessively humid or dusty location. Avoid installing the deck next to kitchen counters or other locations subject to oily smoke or humidity.
- If the deck is placed directly on top of an amplifier, it may pick up humming or other noise. Also, if the amplifier generates a large amount of heat, the deck may malfunction.
- If the deck is located near a television set, it may pick up interference noise, which will be recorded as a whistling sound on the tape. If this happens, move the deck further away from the television set or turn the television set off when operating the deck.
- Do not place a cloth over the deck, or block the ventilation slots in any way. The ventilation slots on this deck are necessary to keep internal parts cool. If they are blocked, the deck may malfunction.

CONDENSATION

When the deck is moved from a cold location to a warm location, or when the temperature of the room changes suddenly, condensation may form on the mechanical parts. This can adversely affect the performance of the deck. If this occurs, wait for about one hour to allow the deck to adjust to the room temperature. To prevent condensation when heating a room, raise the temperature slowly.

THE POWER SWITCH IS SECONDARY CONNECTED AND THEREFORE DOES NOT SEPARATE THE UNIT FROM MAINS POWER IN STANDBY POSITION.

MAINTENANCE



CLEANING THE HEADS, PINCH ROLLER AND CAPSTAN

The heads, pinch roller and capstan are likely to get dirty quite easily. If these parts, particularly the heads, get dirty, the high frequency components of a recording will not be reproduced and the stereo balance will be impaired, resulting in a deterioration of the playback sound. It is therefore recommended that the head section be cleaned regularly.

1. Set the POWER switch to STANDBY.
2. Press the eject button to open the cassette door.
3. Dip a cleaning swab in cleaning fluid and use it to wipe the heads, capstans and pinch rollers.

NOTE:
After cleaning the head section, do not load a tape until the cleaning fluid has dried completely (about two or three minutes).

DEMAGNETIZING THE HEADS

After using the cassette deck for a period of time, the heads will become magnetized. The same effect will occur if a magnetized screwdriver, magnet, or other magnetized object is brought too close to the heads. When the heads become magnetized, high frequency sounds will be lost during recording or playback, and interference noise may also occur. The heads should be regularly demagnetized with a head demagnetizer, which can be purchased at most audio stores.
When demagnetizing the heads, make sure that the POWER switch of the cassette deck is set to ON. **However, be sure to turn down the amplifier's volume control to its lowest position, and disconnect any headphones from their headphones jack.** For detailed instructions, refer to the operating instructions of the head demagnetizer.

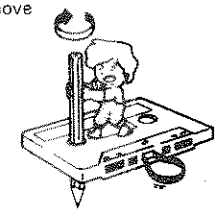
CLEANING THE FRONT PANEL

Clean the deck regularly with a soft cloth. If the front panel becomes soiled, moisten a soft cloth with a weak solution of neutral detergent (diluted in five to six parts water), wring the cloth well, and wipe the panel clean. Never use volatile cleaners like thinners, benzine or alcohol because they will damage the panel finish.

HANDLING CASSETTE TAPES

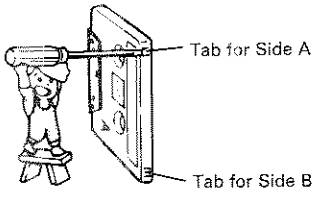
A

Turn pencil to remove tape slack



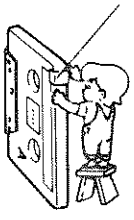
B

For erasure prevention remove

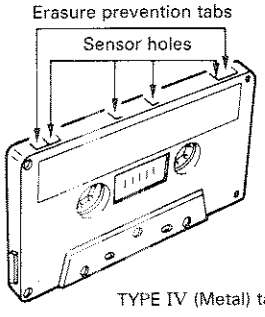


C

Cover with adhesive tape

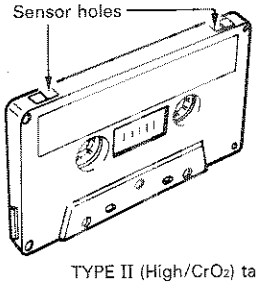


D



TYPE IV (Metal) tape

E



TYPE II (High/CrO_2) tape

CHECK CASSETTE BEFORE USE

Check the following items before loading a cassette tape:

Is the tape loose, or is some of the tape outside the cassette?

If some of the tape is loose or projecting outside the cassette shell, the tape may not properly enter between the capstan and pinch roller. This will prevent the tape from being supplied properly, and may even damage the tape itself. In such cases, insert a pencil into the reel hole and take up the slack (Fig. A).

Some cassette tapes come with a plastic or thick paper stopper to prevent the tape from becoming slack. Remove this stopper when loading the cassette and replace it after using the cassette.

Are the accidental erasure prevention tabs intact?

These tabs allow you to prevent important recordings from being erased accidentally. When the tab on the cassette shell is broken off (Fig. B), it is not possible to activate the recording function, so valuable recordings will not be erased by mistake.

To re-record on a cassette whose tab has been broken off, simply stick a piece of doubled adhesive tape over the hole (Fig. C).

When using TYPE IV (Metal) or TYPE II (High/CrO_2) tapes, be careful not to block the sensor holes with the tape (Fig. D, Fig. E). If the holes are blocked, the automatic tape selector mechanism will not operate correctly.

NOTES:

- *The accidental erasure tab for each side is the one located on the top left when the side that you want to protect is facing you.*
- *When breaking off the tab, do not use a magnetized screwdriver.*

AUTOMATIC TAPE SELECTOR FUNCTION

This cassette deck is equipped with an automatic tape selector function which utilizes the sensor holes on the tape cassette to determine the type of tape being used. The deck is then set to match the tape recording bias and equalization.

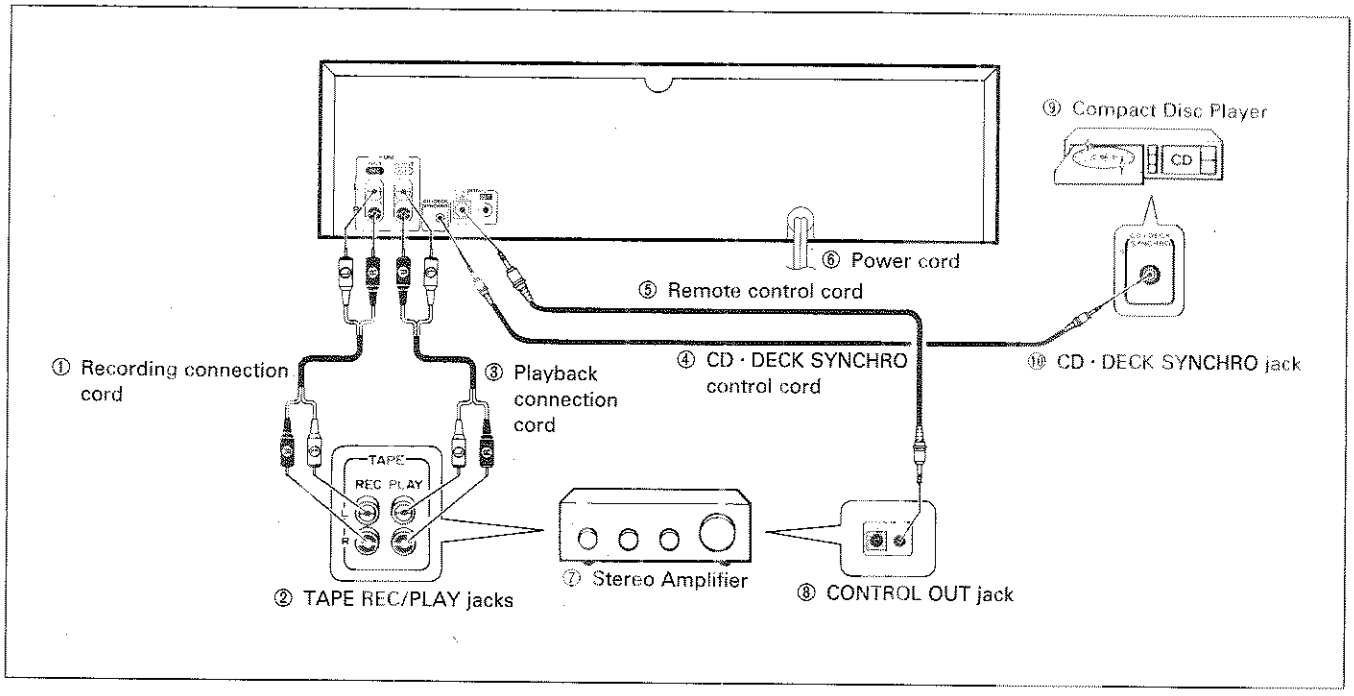
NOTES:

- *When using TYPE IV (Metal) tapes, make sure that the tapes have sensor holes.*
- *Make sure that the sensor holes on the cassette are not blocked; otherwise the tape selector mechanism will not function properly.*
- *Do not use TYPE III (FeCr) tapes.*

TIPS ON CASSETTE TAPES

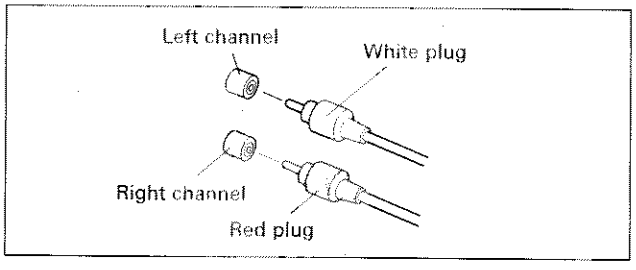
- Leader tape (which cannot be recorded on) is provided at the beginning of a cassette tape. Let the tape run for about 5 seconds before starting to record, to allow the leader tape to clear the recording head.
- Do not leave a cassette tape exposed to the environment. Store the cassette in its case after use so that dust and dirt do not adhere to the tape, and so the tape will not get slack. Store tapes in a location free from magnetism, dust, dirt, oil, heat and humidity.
- **Because C-120 tapes are very thin, they can easily jam in the pinch rollers and capstan, and they often are subject to other problems such as irregular winding. It is best not to use them with this deck.**
- If cassette tapes are irregularly wound, the tape may get jammed in the rollers. This can cause damage to both the tape and the deck. If you are not certain whether the tape is wound evenly, fast forward or rewind the tape from beginning to end, to make sure that the tape is properly wound.

CONNECTIONS



- Read through the operating instructions of the stereo components which you intend to connect to this unit.
- Turn the power on only after making all of the connections.
- Make sure that all of the connection plugs are inserted securely, as improper connections may generate noise.

CONNECTING THE RECORDING AND PLAYBACK CORDS (①, ③)



Connect the TAPE jacks of your amplifier to the LINE jacks of the cassette deck. Be sure to connect the REC (INPUT) jacks of the deck to the recording (output) jacks of the amplifier, and the PLAY (OUTPUT) jacks of the deck to the play (input) jacks of the amplifier.

- Connect the plugs properly:
  Left channel — White plug
  Right channel — Red plug

CD · DECK SYNCHRO RECORDING (④, ⑩)

- CD · DECK SYNCHRO recording can be carried out when this unit is connected to a Pioneer CD player equipped with a CD · DECK SYNCHRO jack.

Connection

Connect the CD · DECK SYNCHRO jack of this unit to the CD · DECK SYNCHRO jack of the CD player using the supplied CD · DECK SYNCHRO control cord.

NOTES:

- *Keep the input and output jacks connected between the amplifier and this unit, otherwise, CD · DECK SYNCHRO recording cannot be carried out.*
- *Even when the CD player is connected to the amplifier with an optical fiber cable, connect the CD player to the amplifier or this unit with the input and output cords with pin plugs.*

PIONEER SYSTEM REMOTE CONTROL (⑤, ⑧)

CONTROL IN jack

Use the enclosed Remote Control Cord to connect this jack to the CONTROL OUT jack of another component which bears the SR mark (indicating that it is equipped with a PIONEER System Remote Control). You will then be able to operate this unit using the Pioneer system remote control unit.

CONTROL OUT jack

The intermediary jack outputs signals from the CONTROL IN jack of this unit to the input jack of another unit. Connect this jack to the CONTROL IN jack of another component compatible with Pioneer System Remote Control.

NOTES:

- *Be sure to connect both of the control cord's plugs securely to the CONTROL IN and CONTROL OUT jacks. Do not connect only one end of the cord.*
- *When connecting to the amplifier bearing the SR mark with the System Remote Control cord ⑤, the recording connection cord ① or playback connection cord ③ must be connected to the unit. If connections are incomplete, the System Remote Control cannot function.*
- *When connecting to a CD player bearing the SR mark with the System Remote Control cord, the CD player's audio outputs must be connected to the amplifier with a connection cord.*

CONNECTING THE POWER CORD (⑥)

Insert the power cord of the cassette deck into the accessory AC outlet of your amplifier, or into a normal household outlet.

POWER-CORD CAUTION

Handle the power cord by the plug. Do not pull out the plug by tugging the cord and never touch the power cord when your hands are wet as this could cause a short circuit or electric shock. Do not place the unit, a piece of furniture, etc., on the power cord, or pinch the cord. Never make a knot in the cord or tie it with other cords. The power cords should be routed in such a way that they are not likely to be stepped on. A damaged power cord can cause fire or give you an electrical shock. Check the power cord regularly. When you find it damaged, ask your nearest PIONEER authorized service center or your dealer for a replacement.

LAST MEMORY FEATURE

This unit uses non-erasable non-volatile semiconductor memory to provide semi-permanent (about 10 years) storage of the most recent AUTO BLE data in addition to the on/off positions of other switches and buttons. As a result, the most recent settings are stored in the memory even when the power cord is disconnected.

- BLE data
- FLEX (1/f) System mode (On or off)
- Meter range data
- Dolby NR system (Off, B, C or S) (S-type NR system is for CT-S430S only)
- STANDBY ON/OFF
- Tape counter number data
- Display mode (On or off)

The following data is erased when the power cord is disconnected from the power supply.

- Counter mode
- Time counter data

To clear all the memorized data and set the unit to its original data settings

Press the mute (○) button and the DISP OFF/COUNTER MODE button simultaneously.

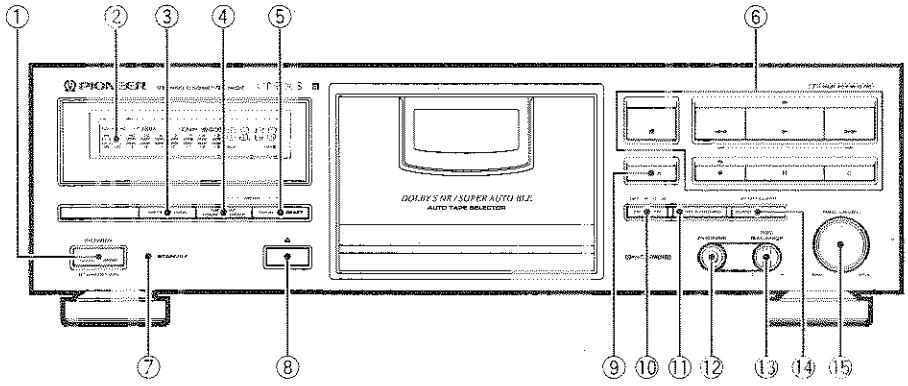
WAKE-UP PLAYBACK

1. **Load a prerecorded tape.**
   - Make sure that the tape is rewound.
2. **Set the DOLBY NR system by pressing the DOLBY NR button.**
3. **Set the stereo amplifier for tape playback.**
   - Adjust the volume level while playing back a portion of the tape.
4. **Rewind the tape to the position where playback is to start.**
5. **Press the play (▶) button, then the pause (▮▮) button.**
6. **Set the audio timer.**
   - When the audio timer is set, it will turn off the power of all components connected to the deck.
7. **At the specified time on the audio timer, the power will be turned on.**
   The counter display will flash "PLAY" for 4 seconds. Then the counter display will return to the normal mode and playback will start automatically.

NOTE:

- *If any buttons (including remote control buttons) are pressed during the first 4 seconds after the power is turned on, the counter display will be set to the normal mode and the timer playback will be canceled.*
- *Operations depend on the type of audio timer, so be sure to consult the operating instructions of the audio timer that is being used.*

FRONT PANEL FACILITIES



● The above illustration shows CT-S430S.

① POWER STANDBY/ON switch

The POWER switch activates the secondary transformer only. Even when the switch is in the STANDBY position, there will be a power flow to the deck's circuits as long as the power cord is connected to a power outlet.

② Function display

③ Level meter range selector button (METER RANGE)

Press to select wide or expanded range on the level meter.

④ Display off/Tape counter mode button (DISP OFF/ COUNTER MODE)

Press to select the tape counter mode, the time counter mode, or to turn the function display off. Press the button to choose between the modes or to turn the display off.

Display off (Tape counter) → Display on (Tape counter) → Display on (Time counter)

⑤ Tape counter reset button (COUNTER RESET)

⑥ Operation buttons

◀◀/MS : Rewind/music search
■ : Stop
▶ : Playback
▶▶/MS : Fast forward/music search
● : Recording
❚❚ : Pause
○ : Recording mute

⑦ STANDBY indicator

⑧ Eject button (⏏)

● If the tape is moving (recording, playback, tape winding, etc.), press the stop (■) button before pressing this button.

⑨ FLEX button

⑩ Dolby* NR button (OFF/B/C/S) (CT-S430S)
Dolby* NR button (OFF/B/C) (CT-S330)

For the CT-S430S: OFF → B → C → S
For the CT-S330: OFF → B → C

*

- *Dolby noise reduction and HX Pro headroom extension manufactured under license from Dolby Laboratories Licensing Corporation. HX Pro originated by Bang & Olufsen.*
- *"DOLBY", the double-D symbol ⧈ and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.*

⑪ CD · DECK SYNCHRO recording button (CD SYNCHRO)

⑫ Headphones jack (PHONES)

⑬ Recording balance control (REC BALANCE)

⑭ SUPER AUTO BLE button

⑮ Recording level control (REC LEVEL)

FLEX (1/f) SYSTEM

- FLEX System: Frequency Level Expander System
  This system automatically compensates high and low frequency level balance above 1 kHz according to the 1/f curve during playback.
  Generally, an envelope line of sound energy distribution of Hi-Fi sounds corresponds statistically with the 1/f curve.
  The 1/f curve indicates that if the frequency doubles, the level decreases by approx. half of the original frequency level.
- During playback, the FLEX system automatically compensates tapes with poor sound quality at high frequency levels of 1 kHz and over, based on the appropriate auditory characteristics.
  The FLEX system is designed to improve high frequency reproduction in the 10 kHz range up to about 12 dB (MAX) particularly in tapes with poor sound quality and sound presence at high frequency levels. If the playback tape sound matches the 1/f curve, the FLEX system defeats compensation adjustment automatically.
- When you press the FLEX button to turn the FLEX system on and start playback, the ⊠ indicator flash and compensation adjustment begins.
  Compensation adjustment takes approximately within 3 seconds to complete, depending on the music source. The indicator change from a flashing to a steadily lit condition.
- When the FLEX system is engaged, each music selection is automatically adjusted during playback. System operation status is indicated by whether the ⊠ indicator is lit.

NOTE:

- *When a tape has been recorded at a high frequency level above the compensation level, FLEX system operation is automatically defeated during playback.*

AUTO BLE TUNING SYSTEM

With commercially available cassette tapes, sensitivity and frequency characteristics might differ slightly from one another, even though the same sound adjustment is set for them. To utilize tape characteristics to the maximum possible and realize an ideal recording which reproduces the source exactly, optimum recording level (sensitivity) and equalizer values must be set accordingly for each tape. In many conventional tape decks, standard values are fixed for standard tapes, thus nullifying the subtle differences between individual tapes. Perfect tuning by ear through use of fine adjustment controllers for bias and sensitivity is difficult and requires a lot of effort.
The SUPER AUTO BLE on this unit automatically adjusts bias, level and equalizer by using a microprocessor to set the optimum recording characteristics accordingly for each tape.

DOLBY NR & DOLBY HX PRO

■ Dolby B/C-type NR Systems

Dolby NR systems are designed to reduce the amount of tape hiss, mainly in the treble components. During recording, the high-pitched pianissimo sounds which are most characteristic of audible noise are boosted, and during playback, only these boosted sections are attenuated, so that tape sound is returned to normal. As a result, the noise is attenuated by an amount equal to the boosting in the treble range. The Dolby B-type NR system reduces noise in the treble range, cutting tape hiss and expanding the dynamic range. The Dolby C-type NR system is even more effective in reducing noise, as it cuts the noise from the mid-range on.

■ Dolby S-type NR System (CT-S430S)

The Dolby S-type noise reduction system is effective at reducing noise not only in the treble and mid-range frequencies, but in the bass frequencies as well. In addition, maximum noise-reducing effect is demonstrated not only in non-recorded parts of the tape but in the recorded signal portions as well. The broad reduction of noise modulation (bridging noise), freedom from dynamic side-effects in the audible spectrum (signal modulation) and reduction of decoding errors results in vastly improved sound quality.

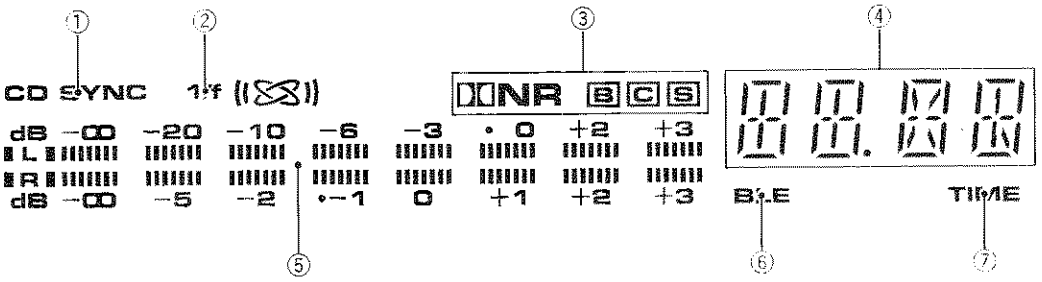
NOTE:

When a tape has been recorded using the Dolby B-type, C-type or S-type NR system, make sure that the DOLBY NR system is set to the same position during playback by pressing the DOLBY NR button.

■ Dolby HX PRO Headroom Extension System

The Dolby HX PRO system controls the bias current during recording and always keeps it at an optimal level according to the level of the high frequency components of the music signal. It therefore provides excellent recording quality even when recording signals from digital sources which contain a large amount of high-frequency components. To guarantee optimal recording results, the HX PRO system is activated automatically when recording begins. The Dolby HX PRO system operates regardless of the setting of the Dolby NR System switch. Furthermore, since this system affects the recording quality itself, the clarity and high quality of the sound will be maintained even when the tapes are played back on another tape deck which does not contain the HX PRO Headroom Extension System.

FUNCTION DISPLAY



● The above illustrations shows CT-S430S.

① CD · DECK SYNCHRO indicator (CD SYNC)
Lights when synchro recording from a CD player is being carried out.

② FLEX indicator (1/f)
This indicator lights when the FLEX button is pressed.

③ DOLBY NR B/C/S indicator (CT-S430S)
DOLBY NR B/C indicator (CT-S330)

④ Counter indicator
Normally the tape number or time counter is displayed (see page 9).
Flashes for four seconds after the power cord is connected to the power supply.

⑤ Level meter with peak hold function
The • beside the −1 dB mark (at Expand mode) or 0 dB mark (at Wide mode) indicates the Dolby NR systems reference level.
Meter range:
Wide mode: −20 dB to +3 dB
Expand mode: −5 dB to +3 dB
● Selected meter range is shown on the function display by pressing the METER RANGE button.

⑥ BLE indicator

⑦ TIME counter indicator
Lights up in the time counter mode.

TWO MODE COUNTER

The counter can be set to one of the two following modes: normal tape counter, time counter for displaying the elapsed recording or playback time.

DISP OFF/COUNTER MODE button

When this button is pressed repeatedly, the deck switches between the two display modes, then turns the display mode off.

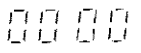
Tape counter

The counter reading will change as the tape runs. By taking a note of the counter readings and the contents during recording or playback, desired selections or unrecorded portions on the tape can be easily located at a later date.

Time counter

- Displays the elapsed time during recording or playback. The time counter is automatically activated when the unit is set to recording or playback.
- The time counter displays only the recording or playback duration. It disappears when fast forward, rewind or music search is performed, and is replaced by the tape counter. When recording or playback is restarted, the time counter appears again.

Counter indication during music search


Normal tape counter indication

Counter indication during music search

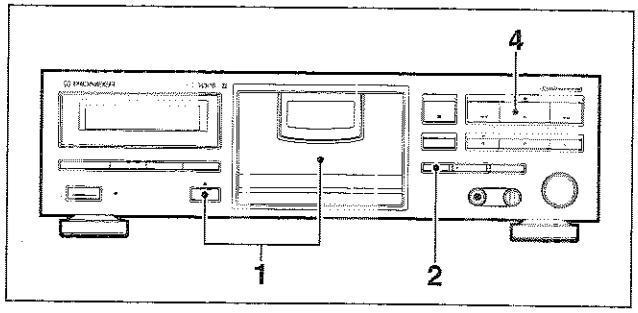
Plus sign

- A plus sign (+) appears during music search in forward direction
- A minus sign (—) appears during music search in reverse direction.

Minus sign

The last two digits of the counter display show the number of selections to be skipped. If three selections are to be skipped, for example, it shows "P+03" first, after which the number decreases by 1 each time a selection is skipped ("P+02" → "P+01" etc.) When the unit switches back to playback, the normal tape counter appears again.

PLAYBACK



1. **Load a prerecorded tape.**
2. **Set the DOLBY NR system by pressing the DOLBY NR button.**
   - Always select the same Dolby NR system that was used for recording.
   - Dolby NR system is set to the previous position automatically when the power is turned on.
3. **Set the stereo amplifier for tape playback.**
4. **Press the playback (▶) button.**

To improve high frequency sound during playback in tapes with poor recordings

Press the FLEX button and playback the tape.

To stop playback temporarily

Press the pause (❚❚) button.

- To resume playback, either press the pause (❚❚) button again, or press the playback (▶) button.

To stop playback

Press the stop (■) button.

MUSIC SEARCH

(Skipping forward or backward to playback a desired selection)

The music search function detects blanks (longer than 4 seconds) between selections, advances the tape in the forward or reverse direction to find the beginning of the desired selection and automatically starts playback.
It can find a selection located up to 15 selections before or after the present position.

During playback

When you wish to locate the next song or beyond, press the ▶▶ button as many times as the number of songs to be skipped. When you wish to listen to the song being currently played from the beginning, press the ◀◀ button once. To return to the previous song or beyond, press the ◀◀ button as many times as the number of songs to be skipped, plus one.

From the stop mode

Press the playback (▶) button to set the playback mode, then press the ◀◀ or ▶▶ button to perform music search as mentioned above.

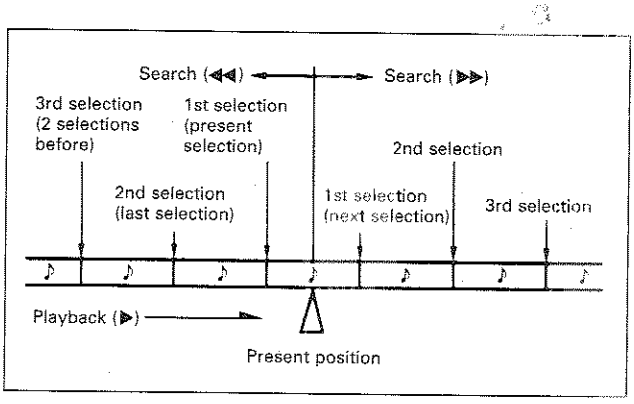
NOTES:

In the following circumstances, the music search function may be unable to properly detect blanks between selections; this is not, however, a sign of unit malfunction.

- *When using a tape with blanks between selections less than 4 seconds long.*
- *When listening to tapes with long low-level intervals, like classical music, or with sound breaks several seconds long within selections.*
- *When listening to recorded conferences or talk shows, where sound is intermittent.*
- *When using tapes with noise in the blanks between selections.*

How Selections are counted

When starting the music search operation from the middle of a selection and specifying "1st previous selection," playback will return to the beginning of the present selection. To return to selections further back, count one extra selection.



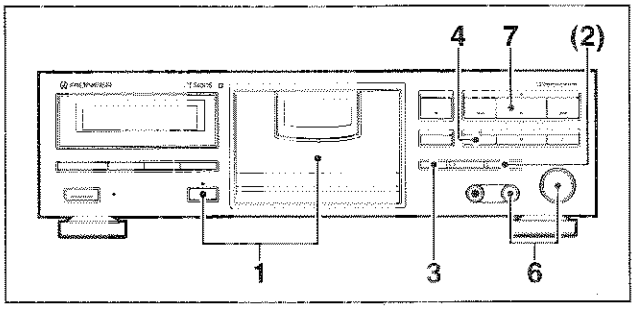
NOTE:

- *Refer to the "TWO MODE COUNTER" section on page 9 for more information about the counter display.*

RECORDING

Erasure prevention tabs

The recording (●) button does not work when the erasure prevention tabs of the loaded cassette tape have been broken off (See page 3). Do not press the recording (●) button with unreasonable force. When recording on both sides, make sure that both tabs are intact.



1. **Load a tape for recording.**
2. **If you use AUTO BLE tuning, press the SUPER AUTO BLE button.**
   - AUTO BLE tuning takes approximately 45 seconds, depending on the type of tape used in recording. The counter display shows ATUO BLE tuning mode.
     When AUTO BLE tuning is completed, the counter display resumes previous normal counter or time counter.
3. **Set the Dolby NR system by pressing the DOLBY NR button.**
4. **Press the recording (●) button.**
5. **Prepare the audio source from which you wish to record. Turn on the stereo amplifier and prepare it for playback of the desired audio source.**
6. **Adjust the recording level. For details, see "ADJUSTING THE RECORDING LEVEL" below.**
7. **Press the playback (▶) button or the pause (▮▮) button to begin recording.**

To stop recording temporarily

Press the pause (▮▮) button.

- To resume playback, either press the pause (▮▮) button again, or press the playback (▶) button.

To stop recording

Press the stop (■) button.

ADJUSTING THE RECORDING LEVEL

The adjustment of the recording level is the most important factor in achieving good recording results. A high level provides a good signal-to-noise ratio and dynamic range, but an excessively high level distorts the sound. If the level is set too low for fear of sound distortion, irritating tape hiss will mar the recording. The characteristics of tapes differ depending on the manufacturer and the type of tape. Set the REC LEVEL control so that the level meter's "0 dB" indicator remains lit most of the time. No harm will be done if the "+2 dB" indicator lights momentarily at peaks. When recording without Dolby NR, set the REC LEVEL control so that the "0 dB" indicator lights, and the "0 dB" indicator lights occasionally at peaks.

NOTES:

- *The optimal recording level may differ somewhat depending on the audio source and type of tape used. In order to obtain the best possible results, set the recording level after actual testing. Listen to your recordings, and adjust the level as necessary.*
- *The level meter may react differently during recording and playback of the same tape. This is due to differences in tape sensitivity, and creates no problem.*

[Balancing the recording level between left (L) and right (R) channels]

Due to the source to be recorded or the equipment used for playback, the sound volume balance between left and right may be shifted to one side. In this case perform fine adjustment using the REC BALANCE control.
Turning the control clockwise will lower the left channel level, and turning it counterclockwise will lower the level of the right channel.

RECORDING MUTE

Use this function to create approx. 4 second blanks needed for proper operation of the music search function.

- Press the recording mute (○) button during recording and the deck will create a blank space by recording a section which contains no signal for approximately four seconds. The deck will then enter recording pause mode.
- To create a blank which is more than four seconds long, hold the button down for the desired length of time. When the button is released, the deck will enter recording pause mode.
- To resume recording, press the pause (▮▮) button or the playback (▶) button.

Erasing a tape

To erase the recorded contents of a tape, load the tape and follow the procedure below.

1. **Set the REC LEVEL control to the MIN position.**
2. **Press the recording (●) button.**
3. **Press the playback (▶) button or the pause (▮▮) button.**

SUPER AUTO BLE

● (See page 7 "AUTO BLE TUNING SYSTEM")

OPERATION PROCEDURE

1. **Insert a tape for recording. (Note that a recording cannot be made if the tab is removed.)**
2. **Press the SUPER AUTO BLE button.**
   AUTO BLE tuning takes approximately 45 seconds, depending on the type of tape used in recording. The counter display shows AUTO BLE tuning mode.
   When AUTO BLE tuning is completed, the counter display resumes previous normal counter or time counter.
   The tape will be forwarded for approximately one second after pressing the start button so that recording will start from the recordable portion of the tape.
   The operation is completed when the start position is resumed.

NOTES;

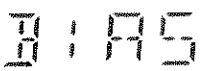
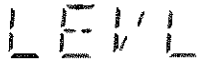
- *To cancel adjusted AUTO BLE tuning, press the SUPER AUTO BLE button again.*
- *Make sure to readjust AUTO BLE when using different types of tapes.*
- *During AUTO BLE tuning, the Dolby NR circuit will not work. Therefore, the position of the DOLBY NR button may be set to off, B, C or S.*
- *To cancel AUTO BLE tuning (e.g. must record urgently), press the stop (■) button.*

Error display

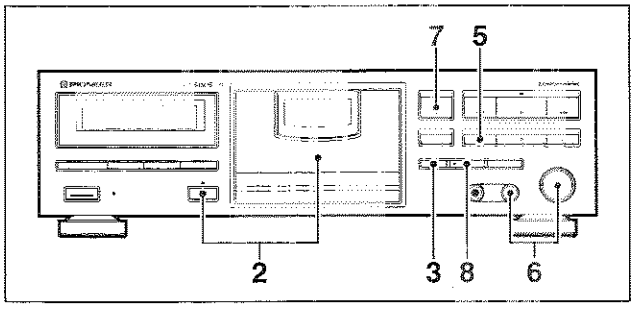
- If the old tape, the tape end or the leader (white portion) immediately prior to the tape end is reached during AUTO BLE operation, tuning becomes impossible. That means recording will stop immediately and the counter indicator will display the following (flashing) message: "Err"
  In this case, press the SUPER AUTO BLE button again to reset, and record without AUTO BLE tuning.
- SUPER AUTO BLE button does not perform tuning during REC, REC/PAUSE or REC MUTE modes.

The following illustrates the operation:

(Operation completed within approximately 45 seconds)

	Display
	Counter indicator
START	(Normal counter)
① ●Adjusting recording bias.	
② ●Adjusting recording level (sensitivity).	
③ ●Adjusting recording equalizer.	
STOP END	(Return to normal counter)

CD · DECK SYNCHRO RECORDING



If the CD player has a program function to determine the order of playback, program the CD player before beginning this operation.

1. **Load a compact disc in the CD player.**
2. **Load the cassette for recording.**
   - Rewind the tape to the desired starting position.
3. **Set the Dolby NR system by pressing the DOLBY NR button.**
4. **Press the play button of the CD player.**
5. **Press the recording (●) button.**
6. **Adjust the recording level.**
   - See page 11.
7. **Press the stop (■) button of both the cassette deck and the CD player.**
   - Unless both this deck and the CD player are in stop mode, synchro recording cannot be performed.
8. **Press the CD SYNCHRO button.**
   - The cassette deck begins recording, and the CD player begins playback.

When the compact disc finishes playing:

The CD player enters stop mode and the cassette deck enters recording standby mode. Change the disc and press the play button of the CD player to resume recording. If the CD player does not resume play within one minute, the cassette deck enters stop mode.

When the CD player changes discs (twin tray or multi-play disc CD players):

The cassette deck enters recording standby mode, and resumes recording when the CD player begins playing the next disc. A four-second blank space is automatically created between tracks.

When the end of the tape is reached while the CD player is still playing:

The CD player returns to the beginning of the currently-playing selection and then enters the pause mode. To resume recording, turn the tape over or load another tape. Synchro recording can be resumed by pressing the CD SYNCHRO button again. (The CD SYNCHRO button should be pressed within 1 minute. If more than 1 minute elapses, the CD player will enter stop mode.)

NOTES:

- *Even when the CD player is connected to the amplifier with an optical fiber cable, connect the CD player to the amplifier or this unit with the input and output cords with pin plugs.*
- *The CD · DECK SYNCHRO function only works with PIONEER CD players equipped with the CD · DECK SYNCHRO function.*
- *Be sure to connect the deck and the CD player with the CD · DECK SYNCHRO control cord.*
- *Although recording begins when the CD SYNCHRO button is pressed, the CD player does not start playback until the button is released. This function can be used to advance the tape past the leader section, or to create a blank section on the tape.*
- *PIONEER CD players equipped with a CD SYNCHRO jack can be used for CD · DECK SYNCHRO recording. Also, any type of CD player which meets these requirements, including twin-tray or multi-play models, can be used.*

TROUBLESHOOTING

Incorrect operations are often mistaken for trouble and malfunctions. If you think that there is something wrong with this component, check the points below. Sometimes, the trouble may lie in another component. Investigate the other components and electrical appliances being used. If the trouble cannot be rectified even after exercising the checks listed below, ask your nearest PIONEER authorized service center or your dealer to carry out repair work.

Symptom	Cause	Remedy
Cassette door does not open. Cassette door does not close.	• Tape mechanism was not stopped. • Cassette tape has not been loaded properly.	• Press the stop (■) button. • Load the tape again.
No power when POWER switch is set to ON.	• Disconnected power cord. • Power cord is connected to switched auxiliary outlet on a stereo component which is not turned ON.	• Connect properly to a power outlet. • Turn on the power of that component.
Tape does not run.	• Tape is wound to its end. • Cassette tape not loaded properly. • Slack tape. • The deck is in the pause mode.	• Rewind the tape or turn tape over. • Reload tape. • Take up slack using pencil (see page 3). • Press the pause (❚❚) button.
No sound.	• Stereo amplifier function switch is not set to TAPE. • Stereo amplifier volume control is at minimum position. • Unrecorded tape has been loaded. • Disconnected or improper stereo amplifier connection. • **Dirty heads.**	• Set it to TAPE. • Turn up the volume. • Use a recorded tape. • Check all connections (see page 4). • **Clean the heads (see page 2).**
No recording.	• Cassette tape accidental erasure prevention tab broken off. • Disconnected or improper stereo amplifier connection. • **Dirty heads.** • REC LEVEL control set too low (no indication of the level meter during recording).	• Replace tape or cover tab hole with adhesive tape (see page 3). • Check all connections (see page 4). • **Clean the heads (see page 2).** • Adjust the REC LEVEL control as indicated on page 11 and record.
Previous sound remains when recording anew.	• **Dirty heads.**	• **Clean heads (see page 2).**
Low treble sound.	• A tape which was not recorded with the Dolby NR System is being played back with DOLBY NR on. • **Dirty heads.**	• Set DOLBY NR to off. • **Clean heads (see page 2).**
Boosted treble.	• A tape which was recorded with a Dolby NR System is being played back with DOLBY NR off.	• Set DOLBY NR to B, C or S.
Distorted sound.	• Distortion in recorded tape itself. • Recording level is too high. • **Dirty heads.**	• Try a different tape. • Turn down recording level and record again (see page 11). • **Clean heads (see page 2).**
Unstable or intermittent sound.	• **Dirty heads, pinch roller and capstan.** • Cassette tape is not wound up uniformly.	• **Clean (see page 2).** • Fast forward or rewind tape to wind up tape again.

Symptom	Cause	Remedy
High noise level.	• Tape itself has high noise level. • Connecting cable has been connected improperly. • Unit has been placed near TV set. • Recording level is too low. • **Dirty heads.** • Heads are magnetized.	• Replace cassette tape. • Inspect input and output connections; connect cables properly (see page 4). • Move the deck away from the TV set or turn the TV power off. • Turn up recording level and record (see page 11). • **Clean heads (see page 2).** • Demagnetize them with head eraser.
Cannot use the remote control system.	• The control cable is not connected.	• Connect control cable properly (see page 4).
CD · DECK SYNCHRO recording cannot be carried out.	• CD · DECK SYNCHRO control cable and Input/ Output cables are not connected. • The cassette tape accidental erasure prevention tabs are broken. • The tape ran out while in the CD · DECK SYNCHRO mode.	• Connect correctly (see page 4). • Replace the cassette with one whose tabs are intact (see page 3). • Replace the tape with a longer one.
The CD SYNC indicator is off during CD · DECK SYNCHRO recording.	• After the deck entered recording standby mode, more than 1 minute elapsed before the CD player resumed playback.	• Change the disc and press the CD SYNCHRO button again.

SPECIFICATIONS

System ..... 4 track, 2-channel stereo
Heads ..... "Hard Permalloy" recording/playback head × 1
"Ferrite" erasing head × 1
Motor ..... DC servo motor × 1
Wow and Flutter ..... 0.070% (WRMS, JIS)
±0.18% (DIN)
Fast Winding Time ..... Approx. 100 seconds (C-60 tape)
Frequency Response (at −20 dB recording level)
TYPE IV (Metal) tape ..... 25 to 18,000 Hz (±6 dB)
TYPE II (High/CrO_2) Tape ..... 25 to 17,000 Hz (±6 dB)
TYPE I (Normal) Tape ..... 25 to 17,000 Hz (±6 dB)
Signal-to-Noise Ratio (Dolby NR OFF)
Dolby NR off ..... More than 57 dB
Noise Reduction Effect
Dolby B-type NR ON ..... More than 10 dB (at 5 kHz)
Dolby C-type NR ON ..... More than 19 dB (at 5 kHz)
Dolby S-type NR ON ..... More than 22 dB (at 5 kHz)
(CT-S430S only)
Harmonic Distortion ..... No more than 1.0%
(at −4 dB: 160 nwb/m)
Input (Sensitivity)
LINE (INPUT) ..... 100 mV (Input impedance 67 kΩ)
Output (Reference level)
LINE (OUTPUT) ..... 0.5 V (Output impedance 2.2 kΩ)
Headphone (PHONES) ..... 1.33 mW (Load Impedance 32 Ω)

Miscellaneous

Power requirements
U.K., model ..... AC 230–240 Volts~, 50/60 Hz
Australian model ..... AC 240V, 50/60 Hz
Power consumption ..... 16 W
Dimensions ..... 420 (W)×125 (H)×280 (D) mm
Weight (without package)
U.K. model and Australian model ..... 3.8 kg

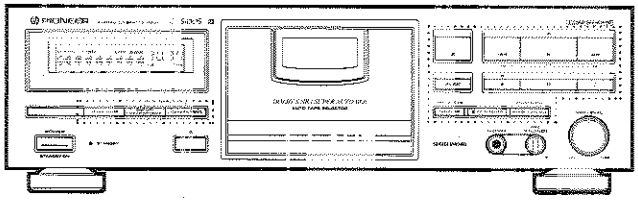
Subfunctions

- Dolby B-type, C-type and S-type NR systems (CT-S430S)
- Dolby B-type and C-type NR Systems (CT-S330)
- DOLBY HX PRO system
- Auto tape selector (TYPE I, II, IV)
- Headphones jack
- 4-digit electronic tape/time counter
- Music search up to ±15 selections
- Automatic space recording mute
- SUPER AUTO BLE tuning system
- FL level meter 7 + 1 segments (with peak hold)
- SR System remote control available
- CD · DECK SYNCHRO function
- FLEX system
- Display off
- Last memory
- Timer play

Accessories

Operating instructions 1
Connection cord with pin plugs 2
SR Remote control cord 1
CD · DECK SYNCHRO control cord 1

NOTE:
Specifications and design subject to possible modifications without notice, due to improvements.



About the Demo Mode:
- Press the DISP OFF/COUNTER MODE button and the COUNTER RESET button simultaneously to set the demonstration mode. To cancel the demonstration mode, press any one of the buttons enclosed in dotted the lines above.

Published by Pioneer Electronic Corporation.
Copyright © 1994 Pioneer Electronic Corporation.
All rights reserved.

PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, Japan
PIONEER ELECTRONICS [USA] INC. 2265 East 220th Street, Long Beach, California 90810, U.S.A.
P.O. BOX 1720, Long Beach, California 90801, U.S.A.
PIONEER ELECTRONICS OF CANADA, INC. 300 Allstate Parkway Markham, Ontario L3R 0P2, Canada
PIONEER ELECTRONIC [EUROPE] N.V. Haven 1087 Keetberglaan 1, 9120 Melsele, Belgium, TEL: 03/750.05.11
PIONEER ELECTRONICS AUSTRALIA PTY. LTD. 178-184 Boundary Road, Braeside, Victoria 3195, Australia, TEL: [03] 580-9911

<94B00BY0M00> Printed in Malaysia <RRB1146-C>